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Variable angle spectroscopic magneto-optics and ellipsometry: Application to DyCo multilayers

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Abstract
The purpose of this paper is twofold. First, we describe the adaptation of a variable angle spectroscopic ellipsometer (VASE) to magneto-optic measurements covering 3000–8000 Å, and 0 to ±8 kOe. Second, we describe application of VASE to determine Kerr rotation and ellipticity for a series of Dy/Co multilayers prepared by sputter deposition. We report spectroscopic ellipsometric and Kerr effect results for samples exhibiting perpendicular magnetic anisotropy, since these are relevant as magneto-optic recording media.

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The purpose of this paper is twofold. First, we describe the adaptation of a variable angle spectroscopic ellipsometer (VASE) to magneto-optic measurements covering 3000–8000 Å, and 0 to $\pm$ 8 kOe. Second, we describe application of VASE to determine Kerr rotation and ellipticity for a series of Dy/Co multilayers prepared by sputter deposition. We report spectroscopic ellipsometric and Kerr effect results for samples exhibiting perpendicular magnetic anisotropy, since these are relevant as magneto-optic recording media.

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